

## ABSTRACT

A remote control flexible instrument system, employing a shaft which supports a tool, is described in which the has proximal and distal ends with at least a portion thereof extending through a lumen of the human body so as to locate the shaft at an internal target site. A master station including an input device provides control of the instrument situated at a slave station. The master station can control at least one degree-of-freedom of the flexible instrument. A controller intercouples the master and slave stations and is operated in accordance with a computer algorithm that receives a command from the input device for controlling at least one degree-of-freedom of the catheter so as to respond in accordance with action at the input device. The flexible instrument further comprises a controlled flexible segment along the shaft, for controlled bending at the flexible segment to guide the shaft and to dispose the tool at an operative site.

50